

**Amendment of the Claims**

Please amend the claims as follows. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously presented) An isolated nucleic acid molecule for detection of *H. capsulatum* selected from the group consisting of:
  - (a) a nucleic acid molecule comprising the sequence of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6;
  - (b) a nucleic acid molecule comprising the sequence of the complement of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6;
  - (c) a fragment of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6, consisting of 21 or more consecutive nucleotides of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6; and
  - (d) a fragment of the complement of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6, consisting of 21 or more consecutive nucleotides of the complement of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6, wherein the isolated nucleic acid molecule hybridizes to at least one *H. capsulatum* chitin synthase intron sequence.
2. (Currently amended) The isolated nucleic acid molecule of claim 1, wherein said fragment comprises up to 25 consecutive nucleotides of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6, or up to 25 consecutive nucleotides of the complement of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6.
3. (Previously presented) The isolated nucleic acid molecule of claim 1, wherein the fragment consists of SEQ ID NO: 7 or SEQ ID NO: 8.

4. (Canceled)

5. (Withdrawn) A method for detecting *H. capsulatum* in a sample, comprising the steps of:

- (a) providing a sample; and
- (b) assaying for the presence of DNA comprising a *H. capsulatum* chitin synthase gene in said sample, wherein the presence of said chitin synthase DNA indicates that the sample contains *H. capsulatum*, and wherein the step of assaying comprises exposing the sample to at least one isolated nucleic acid that hybridizes to at least one intron of the *H. capsulatum* chitin synthase 2 gene, and determining whether there is hybridization of the isolated nucleic acid to the sample, wherein a sample comprising *H. capsulatum* exhibits detectable hybridization and a sample lacking *H. capsulatum* does not exhibit hybridization, and wherein the isolated nucleic acid molecule for detection of *H. capsulatum* is selected from the group consisting of:
  - (i) a nucleic acid molecule comprising the sequence of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6;
  - (ii) a nucleic acid molecule comprising the sequence of the complement of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6;
  - (iii) a fragment of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6 consisting of 21 or more consecutive nucleotides of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6; and
  - (iv) a fragment of the complement of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6 consisting of 21 or more consecutive nucleotides of the complement of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6, wherein the isolated nucleic acid molecule hybridizes to at least one *H. capsulatum* chitin synthase intron sequence.

6. (Withdrawn) The method of claim 5, wherein ~~the~~ intron 1 of the *H. capsulatum* chitin synthase 2 gene is assayed.

7. (Withdrawn) The method of claim 5, wherein the sample is obtained from a human.

8. (Canceled)

9. (Canceled)

10. (Withdrawn) The method of claim 5, further comprising the steps of:

(a) conducting polymerase chain reaction (PCR) amplification using at least one nucleic acid molecule primer that hybridizes to at least one intron of the *H. capsulatum* chitin synthase 2 gene as an amplification primer; and

(b) determining the presence or absence of the PCR product resulting from said the amplification.

11. (Withdrawn) The method of claim 10, wherein the primers hybridize to intron 1 of the *H. capsulatum* chitin synthase 2 gene.

12. (Withdrawn) The method of claim 10, wherein the primers comprise at least one oligonucleotide molecule selected from the group consisting of having the sequence SEQ ID NO: 7 and/or SEQ ID NO: 8.

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17. (Currently amended) A kit for detection of *H. capsulatum* comprising:

(a) one or more containers comprising an isolated nucleic acid molecule selected from the group consisting of: (i) a fragment of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6 consisting of 21 or more consecutive nucleotides of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO:

4. SEQ ID NO: 5, or SEQ ID NO: 6; or (ii) the complement of a fragment of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6 consisting of 21 or more consecutive nucleotides of the complement of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6; ~~one or more containers comprising at least one isolated nucleic acid molecule consisting of at least 21 consecutive nucleic acid sequences of at least one intron of a *H. capsulatum* chitin synthase gene or the complement of at least one intron of a *H. capsulatum* chitin synthase gene; and~~

(b) at least one separate container comprising *H. capsulatum* DNA comprising an isolated nucleic acid molecule comprising a chitin synthase intron DNA complementary to the isolated nucleic acid molecule of (a) selected from the group consisting of: (i) a nucleic acid molecule comprising the sequence of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6, or (ii) a nucleic acid molecule comprising the sequence of the complement of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6.

18. (Previously presented) The kit of claim 17, wherein the intron DNA is intron 1 of the chitin synthase 2 gene.

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